

217/782-2113

"REVISED"

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCES

PERMITTEE

Plote Construction, Inc.
Attn: Mr. Daniel R. Plote, Vice President
1100 Brandt Drive
Elgin, Illinois 60120

Application No.: 73080070

I.D. No.: 043412AAF

Applicant's Designation:

Date Received: February 28, 2003

Subject: Drum Mix Asphalt Plant

Date Issued: June 25, 2003

Expiration Date: September 7, 2005

Location: Stearns and Munger Road, Bartlett

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a GenCor Ultradrum gas-fired, drum mix asphalt plant with cyclone and baghouse, a gas-fired asphalt heater, three asphalt storage tanks, one crushing plant with water spray bars (consisting of two portable impactor crushers, one portable jaw crusher, four screens, and twelve conveyors), pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of Carbon Monoxide (CO) from the source to less than major source thresholds, as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes the current permit(s) issued for this location.
- 2a. This asphalt plant is subject to New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and I. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The particulate matter emissions from the asphalt plant shall not exceed 0.04 gr/dscf and shall not equal or exceed 20% opacity, pursuant to the NSPS.
- c. At all times the Permittee shall, to the extent practicable, maintain and operate the asphalt plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

3. Emissions and operation of the asphalt plant shall not exceed the following limits:

Asphalt Concrete Production			
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	
	150,000	800,000	
<u>Pollutant</u>	<u>Emission Factor</u> <u>(Lb/Ton)</u>	<u>Emissions</u> <u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Particulate Matter (PM)	0.033	2.5	13.2
Nitrogen Oxides (NO _x)	0.026	2.0	10.4
Carbon Monoxide (CO)	0.130	9.8	52.0
Volatile Organic Material (VOM)	0.032	2.4	12.8
Sulfur Dioxide (SO ₂)	0.0034	0.3	1.4
	Totals	17.0	89.8

These limits are based on maximum asphalt concrete production and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 4a. Within 90 days of a written request from the Illinois EPA, pursuant to 35 Ill Adm. Code Section 201.282, the emissions of particulate matter and opacity of the effluent stream from the asphalt plant shall be measured by an approved testing service, during conditions which are representative of the maximum performance. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b. i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.
- | | |
|---------------------------|----------------|
| Opacity | USEPA Method 9 |
| Location of Sample Points | USEPA Method 1 |
| Gas Flow and Velocity | USEPA Method 2 |
| Particulate Matter | USEPA Method 5 |
- ii. A test shall consist of three separate runs each at least 60 minutes in duration. Compliance shall be determined from the average of the runs provided that the Illinois EPA may accept the arithmetic mean of the two runs in circumstances described in 40 CFR 60.8(f).
- c. Testing shall be performed by a qualified independent testing service.
- d. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review and approval. A copy shall also be submitted to the USEPA. This plan shall describe the specific procedures for testing, including:

- i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
- ii. The conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum operating rate, the levels of operating parameters at or within which compliance is intended to be shown, if applicable, and the means by which the operating parameters for the process and any control equipment will be determined.
- e. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the testing.
- 5a. All crushing plant equipment constructed before August 31, 1983 is subject to New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subparts A and OOO. The Illinois EPA is administrating these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Emissions of particulate matter (PM) from the jaw crusher (except from truck dumping) shall not exceed 15 percent opacity (40 CFR 60.672(c) and (d)).
- c. Emissions of PM from the free-standing screen (except form truck dumping) and the conveyors shall not exceed 10 percent opacity (40 CFR 60.672(b) and (d)).
- d. At all times the Permittee shall also maintain and operate this equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
6. Emissions and operation of the crushing plant shall not exceed the following limits:

	Aggregate Throughput		
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	
	100,000	500,000	
<u>Pollutant</u>	Emission Factor <u>(Lb/Ton)</u>	PM Emissions <u>(Tons/Month)</u>	<u>(Tons/Year)</u>
3 Crushers	0.0012	0.18	0.9
4 Screens	0.0018	0.36	1.8
12 Conveyors	0.0001	<u>0.06</u>	<u>0.3</u>
	Totals	<u>0.60</u>	<u>3.0</u>

These limits are based on the maximum aggregate throughput and controlled AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. Emissions and operation of asphalt heater shall not exceed the following limits:

Gas Consumption		Pollutant	Emission Factor (Lb/mmscf)	Emissions	
(mmscf/Mo)	(mmscf/Yr)			(Tons/Mo)	(Tons/Yr)
2.0	10.5	Nitrogen Oxides	100	0.1	0.6
		Carbon Monoxide	84	0.1	0.5

These limits are based on the maximum gas consumption and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

8. The Permittee shall maintain monthly records of the following items:
 - a. Asphalt concrete production (tons/month);
 - b. Natural gas consumption (mmscf/month);
 - c. Crushing plant aggregate throughput (tons/month, and tons/year).
9. All records required by this permit shall be retained at a readily accessible location at the plant for at least 3 years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request.
10. If there is an exceedance of the requirements of this permit as determined by the record required by this permit, the Permittee shall submit a report to the Illinois EPA's Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
11. The assembly of this plant at a new location will require a construction permit for the new location. This permit must be obtained prior to commencing construction at the new location.
12. This permit is issued based on negligible emissions of volatile organic material (VOM) from three asphalt storage tanks. For this purpose emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
13. The Permittee shall maintain operating and maintenance logs for the dryer control system, including: maintenance activities, with date and description of inspections, repair actions, and equipment or filter bag replacements, etc.

- 14a. The Final Report(s) for all tests shall be submitted within 180 days after the date of the test. The Final Report shall include as a minimum:
- i. General information describing the test, including the name and identification of the emission source which was tested, date of test, names of personnel performing the tests, and Illinois EPA observers, if any;
 - ii. A summary of results;
 - iii. Description of test procedures, including description of sampling points, test equipment, and test schedule;
 - iv. Detailed description of test conditions, including:
 - A. Process information, i.e., process rate, aggregate type, fuel type, and firing rate.
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
- b. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:
- Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276
- and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:
- Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016
15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: asphalt production (tons/year), natural gas consumption (mmscf/year), and crushing plant aggregate throughput (tons/year) from the prior calendar year.
16. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including material handling or

storage activity, beyond the property line of the emission source, pursuant to 35 Ill Adm. Code 212.301.

17. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.
18. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering Section 112(G) of the Clean Air Act.

It should be noted that this permit has been revised to incorporate equipment and throughput changes in the crushing plant, update the asphalt plant emission factors, and remove the fugitive PM emissions limit.

If you have any questions on this, please call Jim Kallmeyer at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

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cc: Illinois EPA, FOS Region 1
USEPA

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the asphalt plant and crushers operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, e.g., 100 tons per year of CO, at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

1. Emissions and operation of the asphalt plant shall not exceed the following limits:

Asphalt Concrete Production			
	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	
	150,000	800,000	
<u>Pollutant</u>	<u>Emission Factor</u> <u>(Lb/Ton)</u>	<u>Emissions</u>	
		<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Particulate Matter (PM)	0.033	2.5	13.2
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	Totals	<u>17.0</u>	<u>89.8</u>

These limits are based on maximum asphalt concrete production and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. Emissions and operation of asphalt heater shall not exceed the following limits:

Gas Consumption		<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>		<u>(Lb/mmscf)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
2.0	10.5	Nitrogen Oxides	100	0.1	0.6
		Carbon Monoxide	84	0.1	0.5

These limits are based on the maximum gas consumption and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. This permit is issued based on negligible emissions of volatile organic material (VOM) from three asphalt storage tanks. For this purpose

emissions from each emission source shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.

4. Emissions and operation of the crushing plant shall not exceed the following limits:

	Aggregate Throughput			
	<u>(Tons/Month)</u>		<u>(Tons/Year)</u>	
	100,000		500,000	
<u>Pollutant</u>	Emission Factor <u>(Lb/Ton)</u>	PM Emissions		
		<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	
3 Crushers	0.0012	0.18	0.9	
4 Screens	0.0018	0.36	1.8	
12 Conveyors	0.0001	<u>0.06</u>	<u>0.3</u>	
	Totals	0.60	3.0	

These limits are based on the maximum aggregate throughput and controlled AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

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